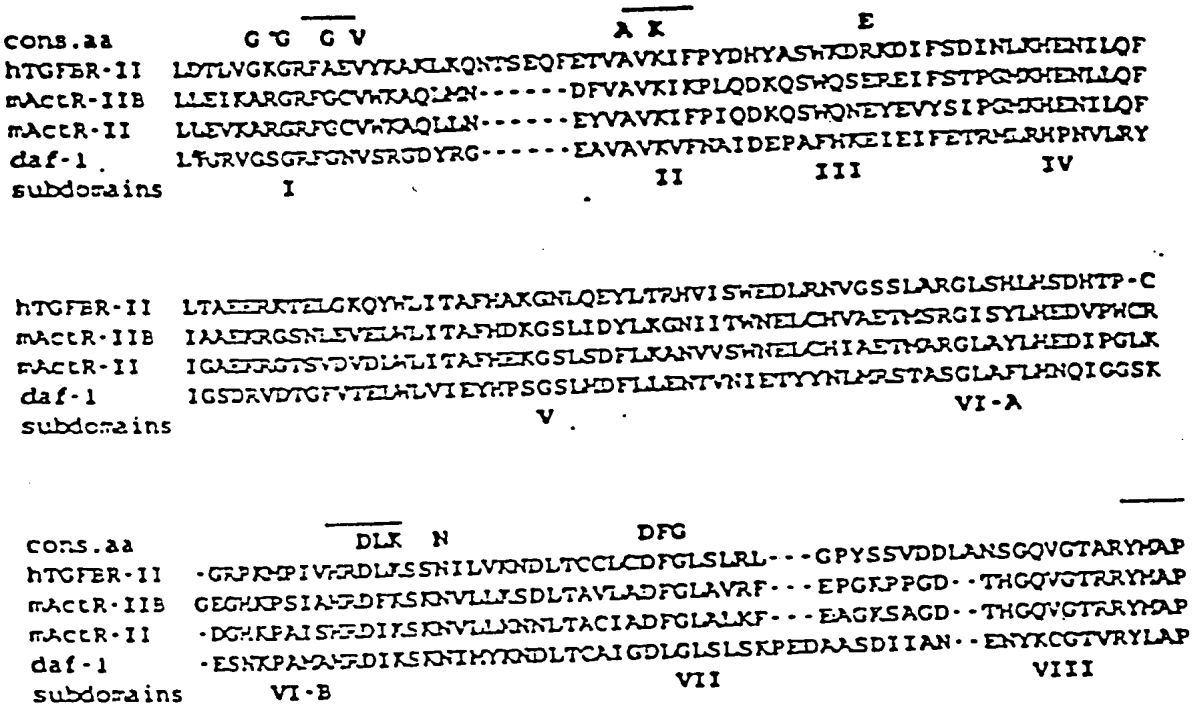

cons.aa
hTGFBR-II
mActR-IIB
mActR-II
daf-1
subdomains
I
II
III
IV
V
VI-A
VI-B
VII
VIII

Fig. 1

a.a C C E G N M C
5′ GCGGATCCTGTTGTGAAGGNAATATGTG 3′ Fig. 2A
BAMHI C C G C

a.a V A V K I F
5′ GCGGATCCGTCGCAGTCAAAATTTT 3′ Fig. 2B
BamHI G C G G C
T T T A

a.a R D I K S K N
5′ GCGGATCCGCGATATTAAAAGCAA 3′ Fig. 2C
BAMHI A C C GTCT
G A

a.a E P A M Y
5′ CGGAATTCTGGTGCCATATA Fig. 2D
EcoRI G G G
A A

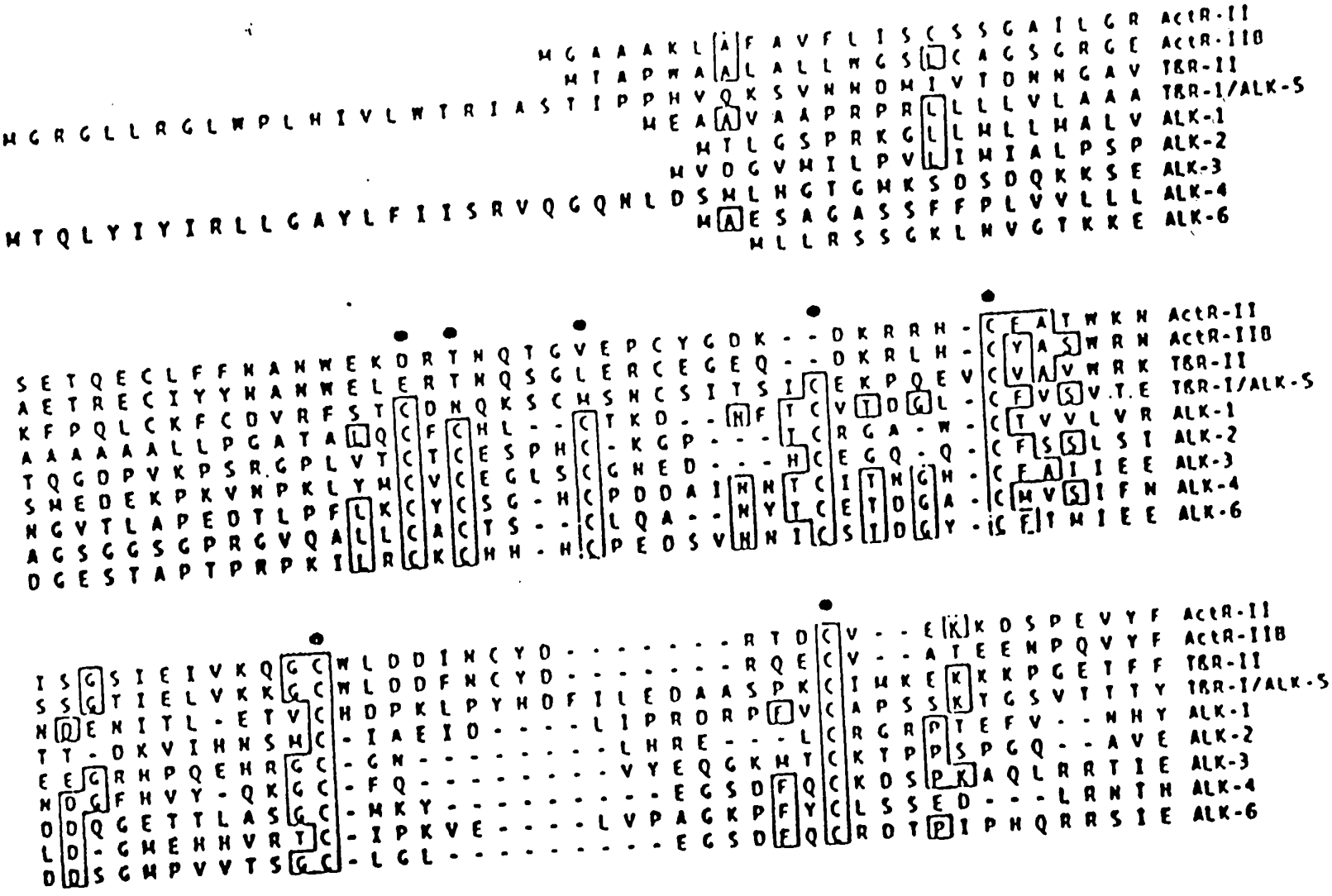


Fig.3

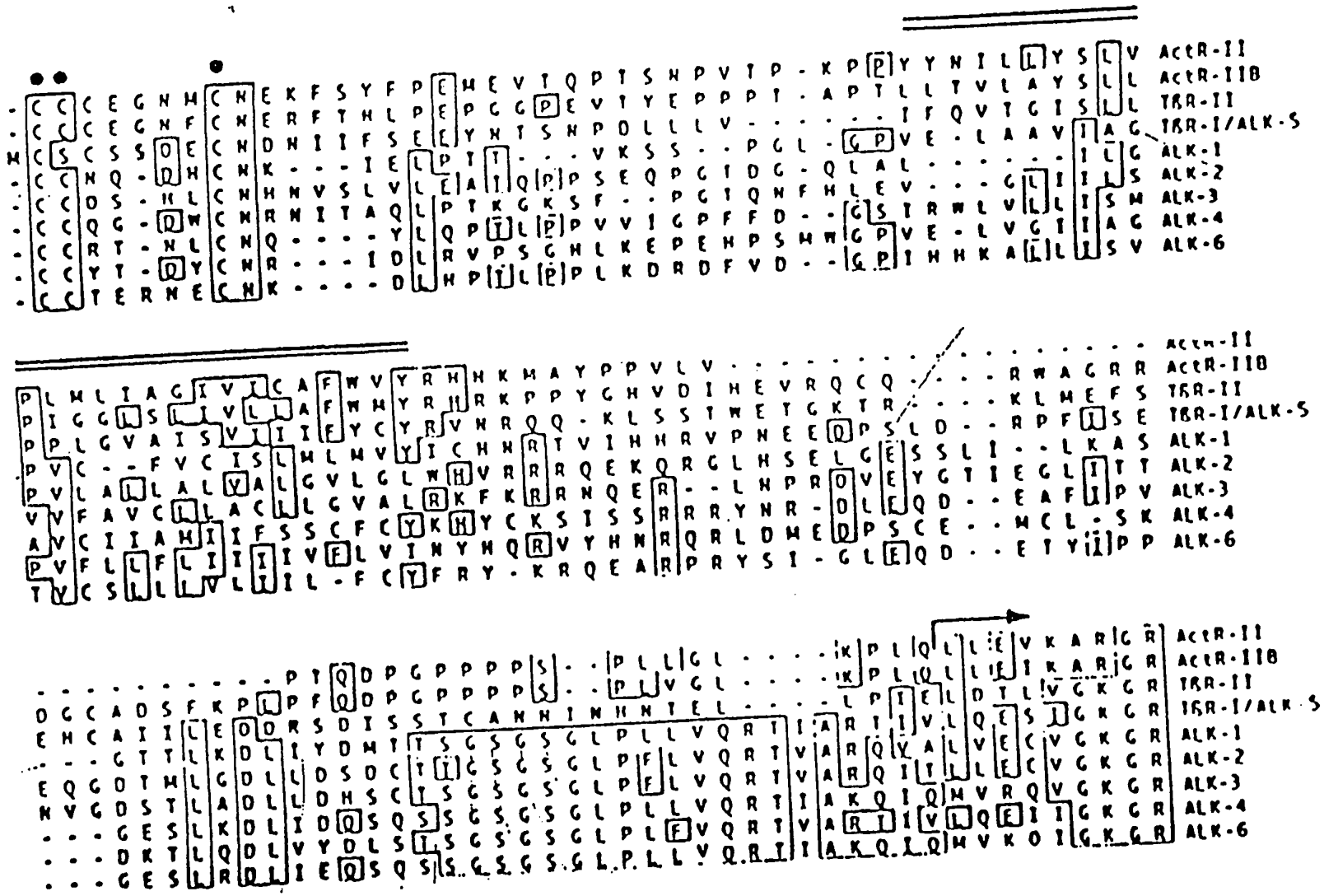


Fig. 3 contd.

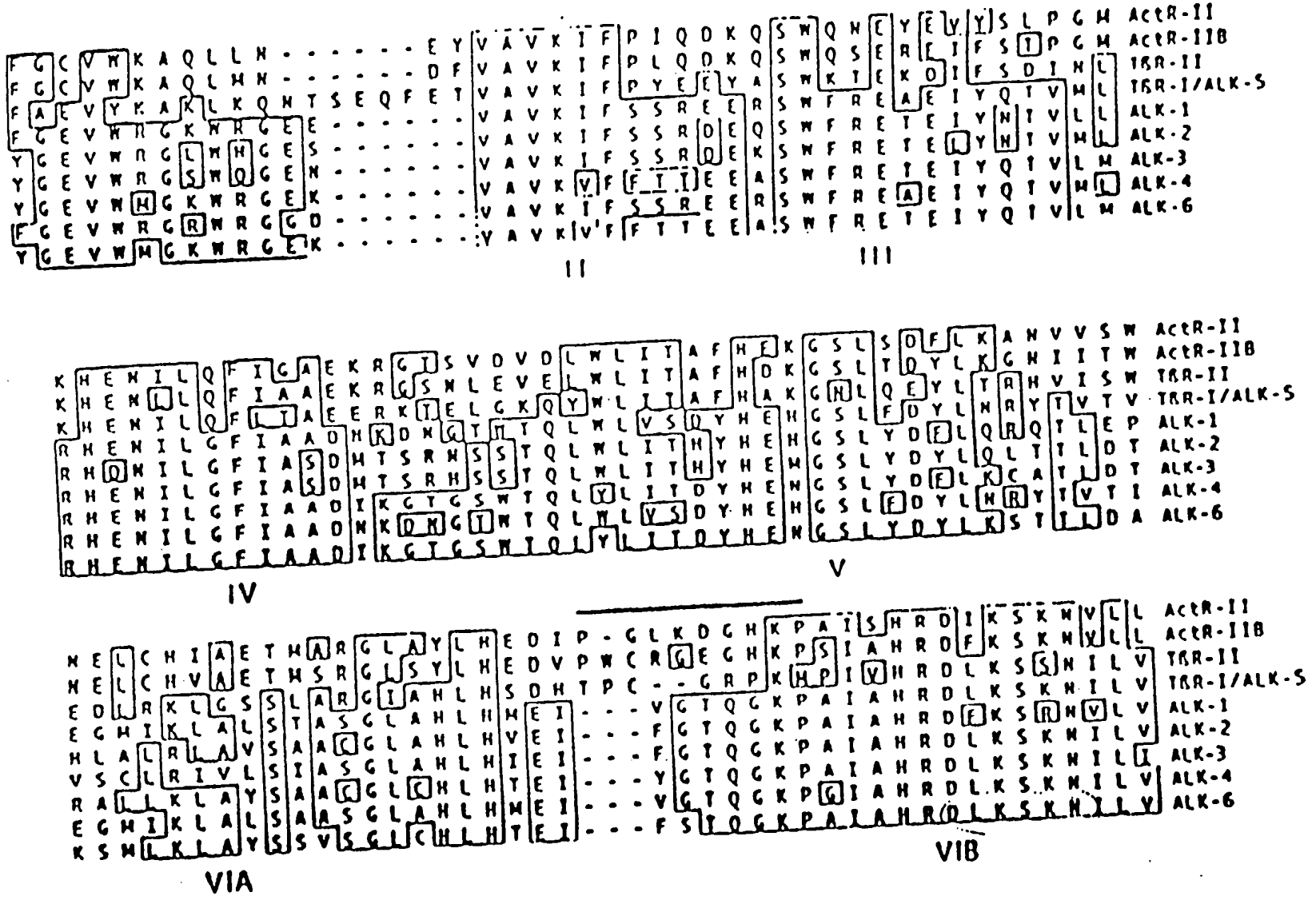


Fig. 3 contd.

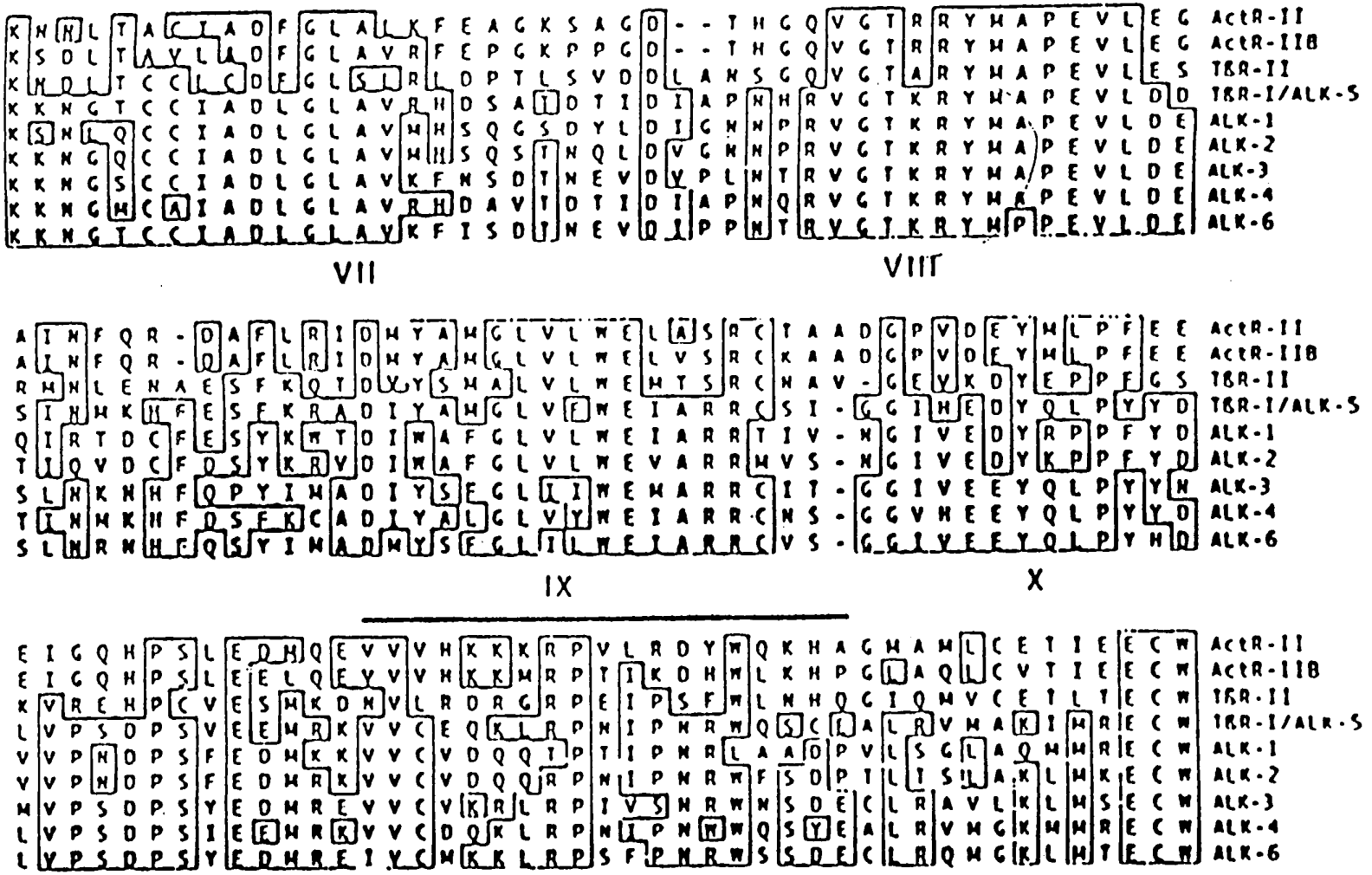
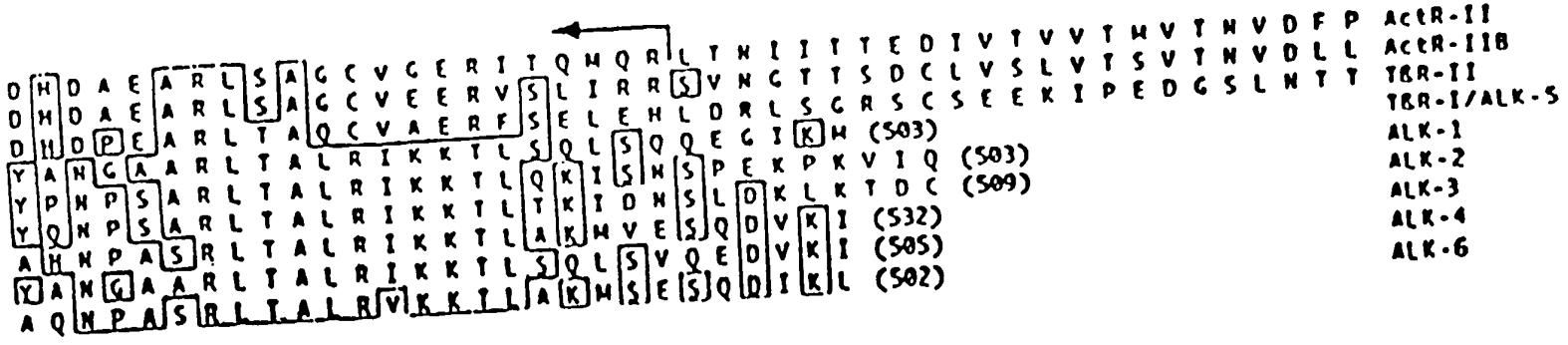

ActR-II
ActR-IIB
TßR-II
TßR-I/ALK-5
ALK-1
ALK-2
ALK-3
ALK-4
ALK-6
VII
VIII
IX
X

Fig. 3 contd.



XI

P K E S S L	(S13)	ActR-II
P K E S S I	(S36)	ActR-IIB
K	(S67)	TBR-II

Fig. 3 contd.

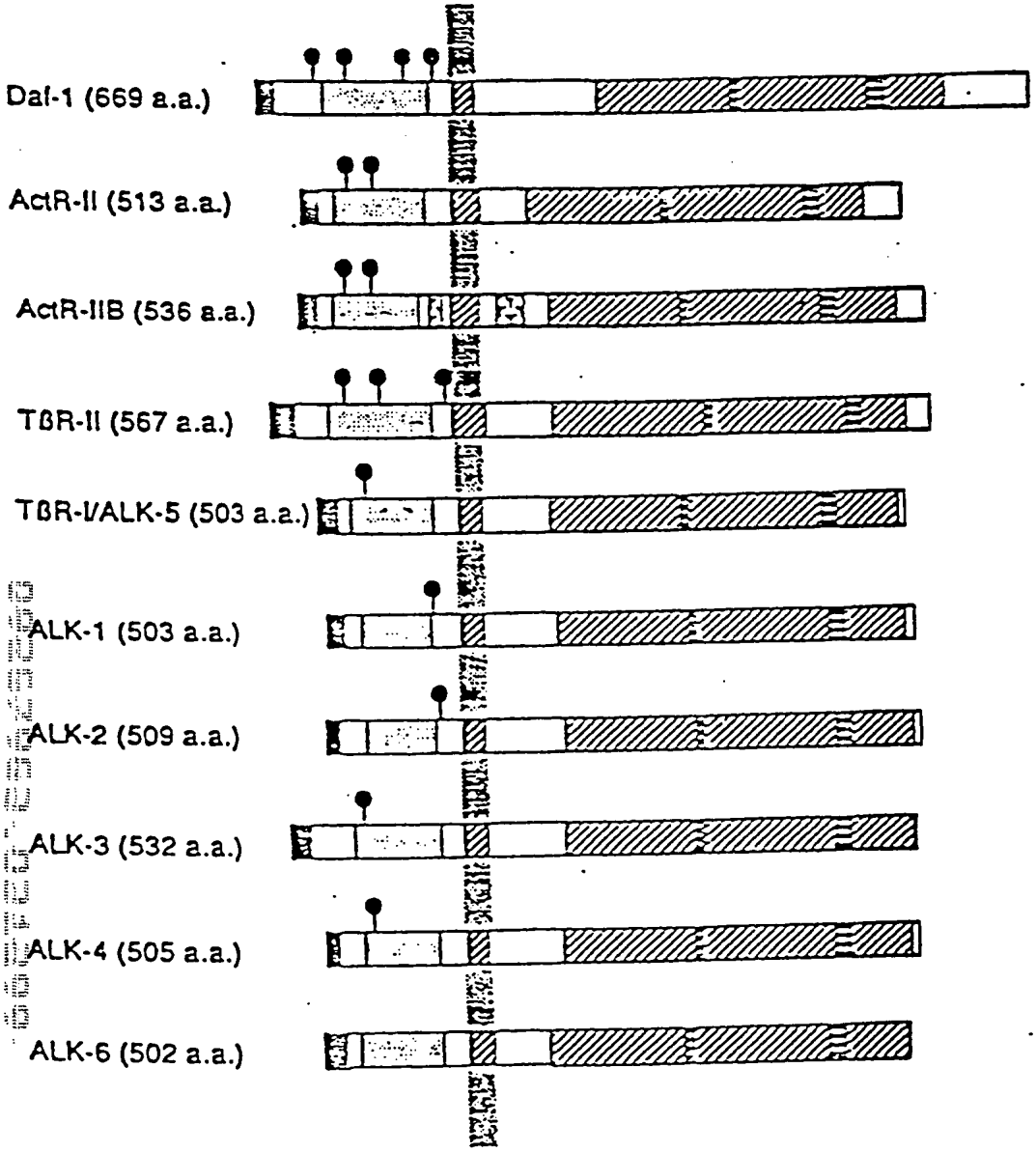

Daf-1 (669 a.a.)
ActR-II (513 a.a.)
ActR-IIB (536 a.a.)
TβR-II (567 a.a.)
TβR-I/ALK-5 (503 a.a.)
ALK-1 (503 a.a.)
ALK-2 (509 a.a.)
ALK-3 (532 a.a.)
ALK-4 (505 a.a.)
ALK-6 (502 a.a.)
signal sequence
cysteine-rich region
transmembrane domain
serine/threonine kinase domain
insert in the kinase domain
potential N-glycosylation site
alternatively spliced region

Fig. 4

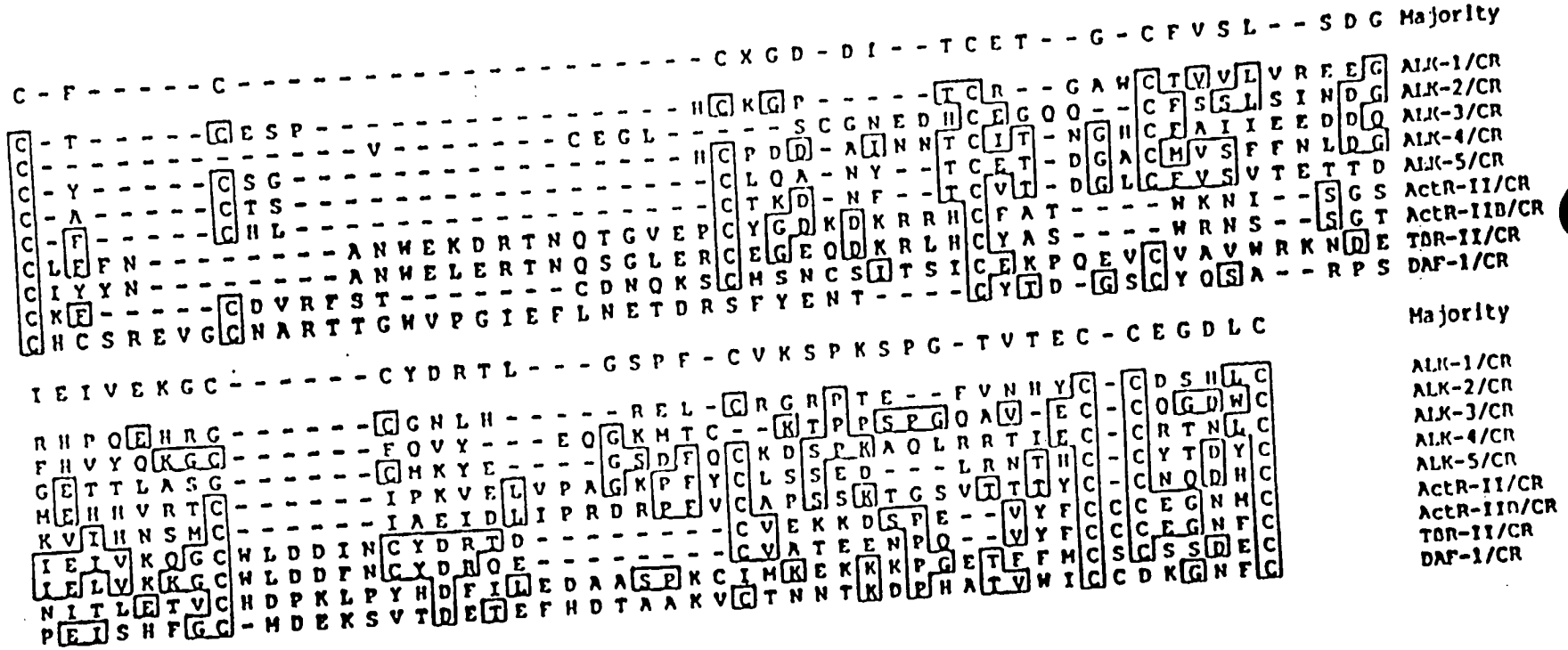

Majority
ALK-1/CR
ALK-2/CR
ALK-3/CR
ALK-4/CR
ALK-5/CR
ActR-II/CR
ActR-IIB/CR
TBR-II/CR
DAF-1/CR
Majority
ALK-1/CR
ALK-2/CR
ALK-3/CR
ALK-4/CR
ALK-5/CR
ActR-II/CR
ActR-IIB/CR
TBR-II/CR
DAF-1/CR

Fig. 5

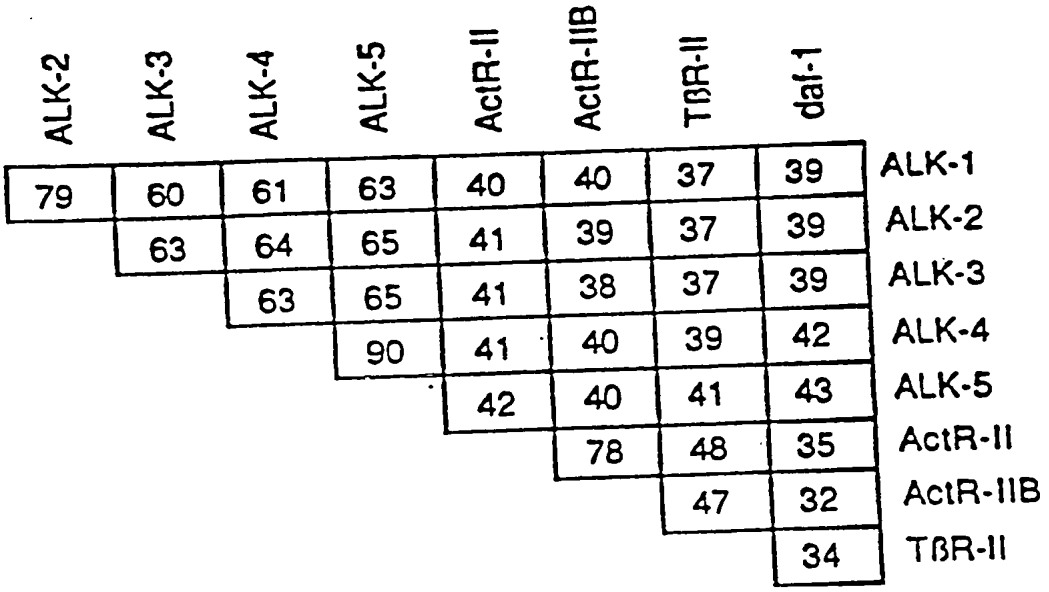

ALK-2
ALK-3
ALK-4
ALK-5
ActR-II
ActR-IIB
TβR-II
daf-1
79 60 61 63 40 40 37 39 ALK-1
63 64 65 41 39 37 39 ALK-2
63 65 41 38 37 39 ALK-3
90 41 40 39 42 ALK-4
42 40 41 43 ALK-5
78 48 35 ActR-II
47 32 ActR-IIB
34 TβR-II

Fig. 6

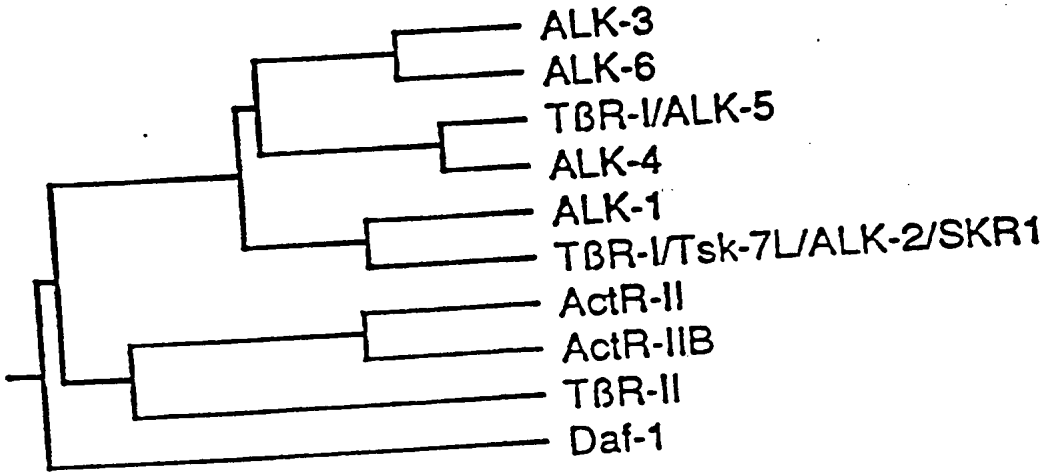

ALK-3
ALK-6
TβR-I/ALK-5
ALK-4
ALK-1
TβR-I/Tsk-7L/ALK-2/SKR1
ActR-II
ActR-IIB
TβR-II
Daf-1

Fig. 7

FLAG-Smad5	-	+	+	+
c.a. ALK1-HA	-	-	+	-
c.a. ALK5-HA	-	-	-	+

IP : anti-FLAG
Blot : anti-phosphoserine

IP : anti-FLAG
Blot : anti-FLAG

IP : (-)
Blot : anti-HA

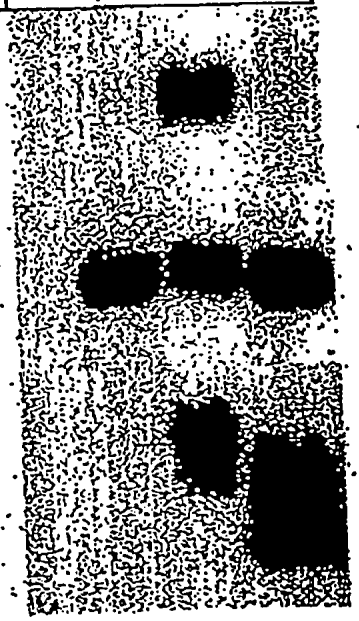


Fig. 8